

Applicant : Johan Weigelt et al.
Serial No. : 09/986,240
Filed : October 19, 2001
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Attorney's Docket No.: 13425-047001 / 00357-US

REMARKS

Upon entry of the above amendments, claims 1-10 and 12 would be pending in the application. Applicants seek to cancel claim 11 and amend claim 1 to incorporate the limitation of canceled claim 11. These amendments add no new matter.

The relatively minor amendments set forth above merely incorporate the limitations of a dependent claim into the independent claim and therefore raise no new issues that would require further consideration and/or search. Applicants submit that these amendments would place the claims into condition for allowance, or at least present the rejected claims in better form for consideration on appeal, and should therefore be entered after the final rejection under 37 C.F.R. § 1.116 (a).

Information Disclosure Statement

Applicants request that the Examiner return an initialed copy of the form PTO-1449 that was included with the information disclosure statement filed on March 19, 2003, confirming that the references cited therein have been considered.

35 U.S.C. § 102(b)

On pages 2-3 of the Office Action, the Examiner rejected claims 1, 4-5, and 8-12 as allegedly anticipated by Yabuki et al., J. Biomolecular NMR, 11:295-306 (1998) ("Yabuki").

Independent claim 1 has been amended to incorporate the limitations of canceled dependent claim 11. As amended, claim 1 is directed to a method for identifying a binder molecule by carrying out a series of steps that include the following: generating a first nuclear magnetic resonance (NMR) spectrum of a labeled polypeptide or protein; generating a second NMR spectrum of the labeled polypeptide or protein that has been contacted with a potential binder molecule having a molecular mass of from 50 to 1000 Da; and comparing the first and second NMR spectra to identify a change of signals that indicates an interaction between a potential binder molecule and the labeled polypeptide or protein.

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In rejecting claim 11, the Examiner stated at page 3 of the Office Action that "[t]his dual labeling technique can be performed on very large proteins such as an entire IgG (binder) molecule with a molecular mass of about 150 kDa, as recited in claim 11." Claim 1, which now contains the limitations of original claim 11, requires that the potential binder molecule used in the method have a molecular mass of from 50 to 1000 Da (not kDa). Contrary to the Examiner's assertions, Yabuki does not disclose the use of a potential binder molecule having a molecular mass of from 50 to 1000 Da. Rather, the "entire IgG" to which the Examiner refers has a molecular mass of 150,000 Da (i.e., 150 kDa). The 150 kDa mass of the IgG described by Yabuki clearly removes it from the size range required for the potential binder molecule used in the claimed methods. Although applicants maintain that Yabuki does not anticipate the claimed method for reasons provided in the response to the first Office Action, the above distinction alone is sufficient to establish that Yabuki does not anticipate the method of claim 1 or the claims that depend therefrom. Accordingly, applicants request that the Examiner withdraw the rejection.

35 U.S.C. § 103(a)

On pages 4-5 of the Office Action, the Examiner rejected claims 2, 3, 6, and 7 as allegedly obvious over Yabuki in view of WO 97/18471.

For the reasons provided above, Yabuki does not anticipate amended claim 1 or the claims that depend therefrom. Because original claim 11 was not rejected under the present heading, it is applicants' understanding that the amendment to claim 1 incorporating the limitations of claim 11 renders the present obviousness rejection moot. In addition, WO 97/18471 provides no suggestion or motivation to modify the labeling technique of Yabuki to arrive at the identification method of amended claim 1 and the claims that depend therefrom.

Yabuki describes using a dual amino acid-selective labeling method for investigating structures of proteins and protein complexes. Nothing in Yabuki suggests generating the two NMR spectra recited in the claims and subsequently comparing the two spectra to identify an interaction between a potential binder molecule having a molecular mass of from 50 to 1000 Da

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and a labeled polypeptide. Furthermore, WO 97/18471 does not suggest to the skilled artisan that the methods described by Yabuki should be thoroughly altered such that, instead of characterizing a protein structure as is detailed in Yabuki, the dual labeling techniques should be modified and used to carry out a screening assay to identify potential binder molecules. Yabuki is not concerned with screening to identify protein binder molecules and nothing in the disclosure of WO 97/18471 would have led the skilled artisan to modify the techniques disclosed in Yabuki to arrive at the claimed screening methods. Accordingly, the cited references do not render the claimed invention obvious. Applicants request that the Examiner withdraw the rejection.

CONCLUSIONS

Applicants submit that all grounds for rejection have been overcome, and that all claims are now in condition for allowance, which action is requested.

Enclosed is a Petition for Two Month Extension of Time. Please apply the \$410 Two Month Extension of Time fee, as well as any other charges or credits, to Deposit Account No. 06-1050, referencing Attorney Docket No. 13425-047001.

Respectfully submitted,

Date: September 23, 2003

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